

DISPENSE GEOMETRY TO ACHIEVE HIGH-SPEED FILLING AND THROUGHPUT

ABSTRACT OF THE DISCLOSURE

[0047] The present invention is directed to a method for dispensing a plurality of spaced-apart droplets of liquid a substrate that features minimizing the distance liquid in the droplets must travel to reach an adjacent droplet to form a contiguous lay of the liquid on the substrate. As a result, when patterning the droplets with a patterned template, the time required to fill the features of the pattern and to cover the substrate is minimized. This increases the throughput of the imprinting process. To that end, the method includes disposing a plurality of spaced-apart droplets on the substrate, each of which has a unit volume associated therewith. A spacing between adjacent droplets of a subset of the plurality of droplets is selected to be a function of a smallest unit volume associated with the subset.